

Instructions for Meridian 861 Software Version 2.5

Introduction to Version 2.5 Software

Version 2.5 adds support for the Meridian 800. It also includes many features, which – with the appropriate cards – allow 861 to give the best performance from high quality sources such as 96kHz 24-bit (96/24) DVDs and upsampled CDs.

New hardware supported

- OA02 and OA12 96/24 analogue output cards.
- IE16 Digital Input card with Meridian High Resolution (MHR).
- OE12 Digital Output card with Meridian High Resolution (MHR) for use with new and upgraded DSP Loudspeakers.
- IA40 Multichannel analogue input card (available soon).
- Z310 Room Correction card (available soon).
- VS10 video switcher (eight S-video inputs with S to composite conversion, available soon).
- VS40 video switcher (eight composite inputs, available soon).

New software highlights

- Support for new MSR3 and Meridian 800 DVD/CD Machine.
- 4-channel 96/24 MHR output in Trifield, Music, Stereo & Direct.
- Upsampling for 4-channel output from 44.1kHz and 48kHz sources.
- Room correction with graphical set up.
- New MLP software.
- Mono DSP Preset adds a 'Party' option (mono from all channels).
- Sine-sweep for setting up Room Correction and room acoustic checks.
- Start-up volume level.

Hardware Restrictions

Version 2.5 can be used with any 861. However, some features are only available with certain new cards, as follows.

1. Digital Input Card IE16 (to replace ID10 or ID12) enables:
 - MHR input from 800.
 - Any 96kHz processing or output.
 - Upsampling of 44.1 or 48kHz sources
2. Digital Output Card OE12 (to replace OD10).
 - OE12 is required for MHR output, or
 - 96k output if DSP Loudspeakers are used.
3. Analogue Output Card OA02 or OA12 (to replace OA00, OA01, or OA11).
 - OA02 or OA12 is required to provide 96kHz from the front channels. (The rear channels may use an older card.)
4. Room Correction requires a Z310 Card.

Installing Version 2.5

This version *requires that you have previously updated your 861 with Version 2.0 Software*. Settings will not need to be re-entered for this upgrade.

Step 1. Install updated Meridian setup program on your computer

If you are using the setup disks, install the new program onto the computer you wish to use.

1. Click **Start/Run** and then entering `a:setup` ↵.
2. Follow the instructions given by the program.

If you are using a self-extracting file from our web site:

1. Run the downloaded program `Meridian_25B.exe`
2. Follow the instructions given by the program.

Step 2. Put new 2.5 firmware in the 861

1. Power off 861 on the back panel.
2. Attach the null-modem RS232 cable (provided) between 861 and a serial port on the computer.
3. Run the fupload shortcut: **Start/Programs/Meridian FUPLOAD**¹. (This opens a DOS window in the `c:\program files\meridian\meridian` directory).
4. Type: `fupload 861_25ba.mfu` ↵ (or `fupload 861_25ba.mfu /c2` ↵ if you are using COM2 on your computer).

You will now be prompted to 'power on' the 861 (using the back panel switch) to begin the software upload. When the process is complete, you will see confirmation on the computer screen that 'New firmware is now running in product'.

5. Close the DOS window by typing `exit` ↵.

Step 3. Installing new cards

With the 861 switched off, install any new cards that you may want to fit to the 861. Follow the instruction sheets provided with each card.

Step 4. Setting up the 861

1. Turn on the 861.
2. Type it from the front panel by holding down the '^' key for 5 seconds or so. Set it to your custom Type (Sometimes called 'Settings').
3. Press **Off** on the front panel.
4. On the computer, run the new Meridian application by clicking **Start/Programs/Meridian Product Configuration**.
5. Select a Serial Port by clicking **View/Options**. (This will usually be COM1).
6. Make sure the null-modem RS232 cable (provided) is connected to the COM port and the 861.
7. If you already upgraded to 2.0, open your settings file by clicking **File/Open** – then finding your file. *If you have not loaded 2.0, do not do this* ².
8. Fetch the settings from the product by clicking **File/Fetch from products**.
9. To save the settings file for reference, click on **File/Save**.
10. Double-click on **Surround Controller 1**.
11. Double-click on **Settings**.

¹ Or, do this: Open a DOS window. Click on **Start/Programs/MS-DOS Prompt**.
Type: `cd \"Program Files\"meridian\meridian` ↵.

² You need to follow the 2.0 installation process first.

12. Click on the icons to customise the settings to match your system. Note in particular the new settings outlined in this document.
13. **Store** the settings to the product by clicking **File/Store to products/Everything**.
14. **Save** the final settings by clicking **File/Save**.

New features in Version 2.5

1. Options for 96kHz output

If you have the correct hardware (IE16), there are new menu options in Trifield, Music, Stereo & Direct.

- Press **Menu Right** until the display shows 'HS Out? Y or N'

Selecting 'Y' will put out high rate audio using the front speakers (Left, Centre, Right and Sub). If the input is standard rate 44.1kHz or 48kHz, it will be upsampled to 88.2kHz or 96kHz.

Selecting 'N' will put out standard rate audio using all the speakers. If the input is high rate – 88.2kHz or 96kHz, it will be downsampled to standard rate 44.1kHz or 48kHz.

2. Sine-sweep

Sine-sweep is a tone generator built into the 861 which allows the investigation of room resonances and vibration of room fittings. It is particularly useful in setting up the Room Correction option (see separate instructions).

To turn on Sine-sweep:

- Select a PCM source, e.g. an analogue source or CD. Do NOT use a compressed source such as a Dolby Digital DVD or Laser Disc.
- Press **Config** (under the flap).

The display will show 'CD Sine 80.0Hz'

An 80Hz sine-wave will be played through all channels.

There are four menus that control the action in Sine-sweep.

Frequency control

- Press **Menu Right** until the display shows 'CD Pause 80.0Hz'
- Press **Menu Up** and **Down** to increase or decrease the Sine-sweep at two rates as follows:
 - Two **Menu Up** presses 'CD >> 88.5Hz'
 - One **Menu Up** press 'CD > 81.5Hz'
 - Default 'CD Pause 80.0Hz'
 - One **Menu Down** press 'CD < 78.5Hz'
 - Two **Menu Down** presses 'CD << 70.5Hz'

The Sine-sweep will run between 0.5Hz and 200Hz. You can adjust the volume normally.

Warning: Very loud low frequency signals may cause damage to speakers.

Source control

- Press **Menu Right** until the display shows 'CD Sine '
- Press **Menu Up** and **Down** to change between the following options for tone generations:
 - Sine-wave 'CD Sine '
 - Silence 'CD Silent '
 - The source signal in mono (Left + Right) 'CD Input '
 - Pink Noise 'CD Noise '

Channel selection

- Press **Menu Right** until the display shows 'CD All Channels '
- Press **Menu Up** and **Down** to select an individual output channel, or all simultaneously.

EQ On/Off (with Room Correction card fitted only).

- Press **Menu Right** until the display shows 'CD EQ Bypassed'
- Press **Menu Up** and **Down** to select between any Room Correction profiles you have set up (see separate instruction sheet).

3. Changes to the Mono DSP Preset

The Mono DSP Preset has been modified to include two new options. Both of these can be stored on a preset-by-preset basis with the **Store** key.

Party On/Off

In Mono, the sound is normally played through the centre channel only, or Left and Right if there is no centre. The Party menu allows the mono signal to be played from all the speakers in the system, with any subs. (**Note:** This option will send full range bass to all speakers that are not supplemented by a subwoofer. This may risk damage to small speakers (e.g. surrounds) at high volume levels).

- In Mono, press **Menu Right** until the display shows 'CD Party? No'
- Press **Menu Up** and **Down** to turn all the channels on or off.

Academy On/Off

The Academy DSP Preset has been replaced by a menu option in the Mono Preset. (**Note:** In Party mode, the Academy filter does not function).

- In Mono, press **Menu Right** until the display shows 'CD Academy Off'
- Press **Menu Up** and **Down** to turn the academy filter on or off.

4. IA40 Multichannel Input Options

The IA40 multichannel analogue input card allows two separate 6-channel inputs to be connected to the 861. If a multichannel input on IA40 has been selected, then only two built-in Presets are available – Discrete and Ambisonics.

IA40 also allows six 2-channel inputs to be connected in the normal way.

Discrete

Discrete inputs are processed like compressed multichannel sources (such as Dolby Digital). For example, the same dynamic bass limiting is used to protect the speakers.

The menus are the same as for the DTS Preset – with the addition of one extra menu that allows the LFE input to be reduced by 10dB³.

Ambisonics

For Ambisonics enthusiasts, B Format Ambisonic can be connected to the IA40. Hence the Ambisonic DSP Preset is also available, and B Format is automatically selected rather than the UHJ format normally used on Ambisonic CDs.

³ The 10dB reduction is useful for some discrete music material which has the LFE channel recorded 10dB higher than the LFE level of standard 5.1 movie material.

5. Extra settings in the Meridian Application

The Meridian Application supports the new Presets and has new configuration settings.

Configuration for 96kHz and MHR output

If you have new specification or upgraded DSP loudspeakers, they can receive 88.2 or 96kHz MHR.

The 861 can be configured for this using the menus on the main **Speakers** dialogue. Adjacent to the diagram of the speaker layout are the drop-down boxes in which you choose whether your speakers are DSP or Analogue. A new pair of options is now present for new or upgraded 96/24 DSP speakers. This should only be selected if your speakers have been upgraded or are of the new specification.

If you have the new IE16 and OE12 fitted and you have new specification DSP Loudspeakers, you can select whether or not to use the MHR interface for the output all the time or only when the input uses MHR for copy protection. This option is in the **Setup** section of the application.

Startup Volume

If you have all analogue speakers, you can configure the 861 to come on at a specific volume level rather than the default of 65.

This option is in the **Setup** section of the application.

Two advanced Source settings

In the **Sources/Advanced** section of the program, there are two new items.

- **Source uses validity flag properly** should normally be left unchecked, except for Meridian CD players and certain DSS receivers. (You should only set this with advice from your dealer.)
- **Only ever play DTS for this source** allows the complete elimination of the click that precedes the DTS signal locking from DTS LDs and CDs. However, it forces the source to only play DTS soundtracks. (You should only set this with advice from your dealer.)

Two advanced System settings

In the **Setup/Advanced** section of the program, there are two new items.

- **Meridian 800 present** should be checked if you have an 800. When you check this, the combination responds differently to the remote control (MSR3). With this setting, Menu commands are passed directly to the 800 and the 861 menus are accessed using Function + Menu.
- **Main video output is composite** should be checked if you have both VS00 and VS10 video cards *and* you want to use the composite output from VS00 to feed the main display. Explanation: VS10 has 8 S-video inputs, but can also convert to composite. By looping the output of VS10 to VS00 you can have both S and composite sources feed a composite display.